

Appl. No. 10/734,072
Response to 01/03/2007 Final Office Action
Atty. Dkt. MI40-369

In the Specification:

At Column 2, line 47, in the "Summary of the Invention" section, please insert the following paragraph:

In accordance with another embodiment, a recess is provided in a plastic substrate containing an integrated circuit comprising RFID circuitry. A conductive material extends over a sidewall of the recess and is coupled to the integrated circuit in a first region and to an antenna in a second region. A flexible film may be disposed over the recess, the integrated circuit, and the conductive material.

In order to incorporate those corrections made in the Certificate of Correction issued July 16, 2002, Applicants amend the specification as follows (MPEP 1411.01):

Replace the paragraph at Col. 3, lines 14-15, with the following:

FIG. 12 is an elevational view of a substrate sheet processed according to a method of the present invention.

Replace the paragraph at Col. 3, lines 16-17, with the following:

FIG. 13 is an elevational view of the sheet of FIG. 12 at a processing step shown subsequent to that of FIG. 12.

Replace the paragraph beginning at Col. 3, lines 66-67, and ending at Col. 4, line 19, with the following:

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Appl. No. 10/734,072
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Referring to FIG. 2, printing pad 20 is pressed against substrate 10 to transfer circuit pattern 21 to substrate 10 and thereby print a circuit 22 (shown in FIG. 3) upon substrate 10 and within recess 14. In the shown embodiment, printing pad 20 is configured to print the circuit pattern on bottom surface 16, on two of sidewall surfaces 18, and on upper surface 12. In alternate embodiments which are not shown, printing pad 20 can be configured to print on less than all of surfaces 16, 18 and 20. For instance, in such alternate embodiments, printing pad 20 may be configured to print only on bottom surface 16, or only on bottom surface 16 and one of the sidewall surfaces 18. Suitable materials which may be pad printed to form circuit 22 are conductive films, such as, for example, printed thick films (PTFs) comprising silver-filled organic material. It is noted that, although pad printing is shown, the printing can comprise other printing methods known to persons of ordinary skill in the art, including, for example, stencil printing, screen printing, spray printing, needle dispense printing, etc. After conductive circuit 22 is printed, the circuit can be cured by conventional methods.

Replace the paragraph beginning at Col. 4, line 20, with the following:

After curing, circuit 22 will have a thickness and associated degree of conductivity. If the conductivity is lower than desired as may occur if, for example, conductive material of circuit 22 is too thin, or not adequately a low resistance material, the conductivity can be enhanced by providing an electroless plated metal, such as copper or nickel, against substrate 10 and circuit 22. The electroless plated metal selectively plates conductive circuit 22, while not plating non-conductive surfaces of substrate 10. The electroless plating of metal can be accomplished by conventional methods.